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Cc: Yeh, Alice[Yeh.Alice@epa.gov]; Wands, James[James.Wands@hdrinc.com]; 'Rooni Mathew'[RMathew@moffattnichol.com]; 'Garland, Edward'[Edward.Garland@hdrinc.com]; Vaughn, Stephanie[Vaughn.Stephanie@epa.gov]
From: Naranjo, Eugenia
Sent: Tue 3/5/2013 6:22:02 PM
Subject: FFS model remediation inputs
20130214-Dredging_For_CPG.zip

Rob,

The attached file has the general road map to the sequence (Modeling Runs Progression 091112.docx). The answers to your requests are attached. Let us know if you have any questions.

- Dredging and/or capping locations in the format of model cell (I,J) and/or GIS shapefile
  - Sediment Transport
    - RM 10.9 - RM10-9_Sequencing_SedTranGrid_10042012.xlsx
    - Alternative 2 (Deep Dredging) - Alt2_Sequencing_SedTranGrid_10122012.xlsx
    - Alternative 3 (Full Capping with Dredging for Navigation) - Alt3_Sequencing_SedTranGrid_10082012.xlsx
    - Alternative 4 (Deep Dredging) - Alt4_Sequencing_SedTranGrid_10082012.xlsx
  - Carbon
    - RM 10.9 - RM10-9_Sequencing_CollapsedGrid_11142012.xlsx
    - Alternative 2 (Deep Dredging) - Alt2_Sequencing_CollapsedGrid_11142012.xlsx
    - Alternative 3 (Full Capping with Dredging for Navigation) - Alt3_Sequencing_CollapsedGrid_11212012.xlsx
    - Alternative 4 (Deep Dredging) - Alt4_Sequencing_CollapsedGrid_11142012.xlsx
  - Contaminants (RM10.9 and Alt4 no dredging below model depths, therefore we don't need concentrations below 5.5ft, use carbon file)
    - RM 10.9 – Use Carbon File
    - Alternative 2 (Deep Dredging) - Alt2_ContaminantModel_CollapsedGrid_112612.xlsx
    - Alternative 3 (Full Capping with Dredging for Navigation) - Alt3_ContaminantModel_CollapsedGrid_112612.xlsx
    - Alternative 4 (Deep Dredging) – Use Carbon File
- Sequence of dredging/capping at each location
  - Same files as above
- The start date of the remediation for each year
  - Presently the model assumes start date of March 1, 2018 and continuous production at an annual rate. The annual rate is calculated assuming 2 dredges, 2000 cy/day/dredge, 6 days a week, 40 weeks per year (960,000 cy/year). For the model the annual rate was distributed to 365 days, so the model assumes continuous production.
  - See Dredge_Calendar.xlsb for overall schedule
- Depth of dredging for each location

○ Included in the files above

- Thickness of capping for each location
  ○ Included in the files above
- Type of cap used at each location
  ○ For the purposes of the model, upland borrow sand with the composition:

Passing Sieve Size	*Um*	*%Passing*
¼	6300	100
# 4	4750	98.8
# 8	2360	33.2
# 16	1180	9.7
# 30	600	3.4
# 50	300	1.9
# 100	150	1.4
# 200	75	1
EPA model	*Um*	*%*
	34	1.0
	250	2.0
	1000	25.0
	4100	72.0

- Length of dredging/capping in days for each cell
  ○ Included in the files above
- Average concentration for all chemicals below the dredge prism for each cell
  ○ For dredging greater than 5.5 ft see contaminant sequence files
  ○ Will need to compile from run outputs for dredging less than 5.5 ft, or assume little change in bathy and use IC concentrations from appropriate layer.
- % mass of solid and chemical release due to dredging/resuspension
  ○ 3% (1.5% in the surface and 1.5% in the bottom layer)
- Post-dredging/capping concentrations for all chemicals in each cell
  ○ Solids per the table above
  ○ Carbon = 0.1%
  ○ Contaminants = 0